

## REMARKS

Figs. 1 and 2 and the specification have been amended to incorporate SEQ ID NOs.

Pursuant to the requirements of 37 C.F.R. §§ 1.821-1.825, Applicants submit the enclosed Sequence Listing and computer readable form (CRF). The amino acid sequences disclosed in the specification, claims, and drawings may be found in computer readable form in file 000648.txt on the enclosed diskette and are presented in the paper copy of the Sequence Listing, also enclosed.

Applicants hereby certify that the information recorded in computer readable form (CFR) supplied on the enclosed diskette as file 000648.txt is identical to the written Sequence Listing. The material presented in computer readable form is not new matter because it presents sequences the same as those disclosed in the specification, as filed.

The required copy of the "Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures" is also enclosed.

Applicants believe that the requirements of 37 C.F.R. §§ 1.821-1.825 have been met.

Respectfully submitted,

WEBB ZIESENHEIM LOGSDON  
ORKIN & HANSON, P.C.

By 

Barbara E. Johnson  
Registration No. 31,198  
Attorney for Applicants  
700 Koppers Building  
436 Seventh Avenue  
Pittsburgh, PA 15219-1818  
Telephone: 412-471-8815  
Facsimile: 412-471-4094  
E-mail: webblaw@webblaw.com



Serial No. 09/509,391  
Atty. Docket No. 702-000648

**REMARKED-UP VERSION OF THE SPECIFICATION**

On page 9, please delete and replace the current version of Table 1 with the following replacement Table 1:

**Table 1.** Interpretation of mass-spectrometrical data of TC-1 and TC-2: comparison with CTAP III

Component	Mol. weight (Da)		Sequence of	
	MALDI/ES	Calc	N-terminus	C-terminus
CTAP-III		9287,2	NLAKGKEESLDSPLYAELR .... <b><u>(SEQ ID NO: 1)</u></b>	AGDESAD
TC-1a	7106,2	7105,8	AELR .... <b><u>(SEQ ID NO: 2)</u></b>	AG
TC-1b	7226,7	7220,9	AELR .... <b><u>(SEQ ID NO: 2)</u></b>	AGD
TC-1*	7436,3	7437,5	AELR .... <b><u>(SEQ ID NO: 3)</u></b>	AGDES
TC-1d	7601,0	7600,7	YAELR .... <b><u>(SEQ ID NO: 4)</u></b>	AGDES <b><u>(SEQ ID NO: 5)</u></b>
TC-2	9100,5	9101,6	NLAKGKEESLDSPLYAELR .... <b><u>(SEQ ID NO: 6)</u></b>	AGDES

Please delete and replace the current version of the paragraph entitled EXAMPLE 2 which bridges pages 10 and 11 with the following replacement paragraph:

## EXAMPLE 2

### Production of recombinant (r) CTAP-III, rNAP-2, rTC-1, rTC-1\* and rTC-2.

From a human bone marrow CDNA library (Clontech, Palo Alto, USA) DNA coding for PBP was amplified in a PCR. 5' TATAGGATCCATGAGCCTCAGACTTGATAC CACC-3' (SEQ ID NO: 7) and 5' TATAGGATCCTCAATCAGCAGATTCATCAC CTGCCAAT-3' (SEQ ID NO: 8) were used as forward and reverse primers, respectively. BamHI restriction sites (underlined) were added to allow cloning in a suitable vector. A stop sequence (boldface) was included to allow proper transcription termination at the stage of protein expression. This PCR was performed using 2 ng of template DNA and Pfu DNA polymerase, which has proofreading capacity. The resulting product was of the expected size (400 bp). This product served as a template in a second PCR to produce the coding DNA of TC-1, TC-2, CTAP-III, NAP-2 and TC-1\*, a variant of TC-1 which lacks two C-terminal amino acids (Ala-Asp) and carries two additional N-terminal amino acids (Ala-Glu) (fig 2). These PCR products were cloned into expression vectors. For CTAP-III, NAP-2 and TC-1 the reverse primer was the same as the reverse primer described above. The forward primers were as follows:

for CTAP-III and TC-2:

5' GTGTAACATATGAACTTGGCGAAAGGCAAAGAG-3' (SEQ ID NO: 9);

for NAP-2 and TC-1\*;

5' GTGTAACATATGTATGCTGAACTCCGCTGCATG 3' (SEQ ID NO: 10);

and for TC-1:

5' GTGTAACATATGTATCTCCGCTGCATGTGTATAAAG-3' (SEQ ID NO: 11).

IC-1: LRC MCIKT TSGIH PKNIQ SLEVI GKGTH CNQVE VIATL KDGRK ICLDP DAPRI KKIVQ KKLAGE DESAD (SEQ ID NO: 12)  
IC-1\*: AELRC MCIKT TSGIH PKNIQ SLEVI GKGTH CNQVE VIATL KDGRK ICLDP DAPRI KKIVQ KKLAGE DES (SEQ ID NO: 3)  
IC-2: NLAGG KEESL DSDLY AELRC MCIKT TSGIH PKNIQ SLEVI GKGTH CNQVE VIATL KDGRK ICLDP DAPRI KKIVQ KKLAGE DES (SEQ ID NO: 6)  
CTAP-III: NLAGG KEESL DSDLY AELRC MCIKT TSGIH PKNIQ SLEVI GKGTH CNQVE VIATL KDGRK ICLDP DAPRI KKIVQ KKLAGE DESAD (SEQ ID NO: 1)  
NAP-2: AELRC MCIKT TSGIH PKNIQ SLEVI GKGTH CNQVE VIATL KDGRK ICLDP DAPRI KKIVQ KKLAGE DESAD (SEQ ID NO: 13)

FIG. 1

ITC-1\*: MAELRC MCIKT TSGIH PKNIQ SLEVI GKGTH CNQVE VIATL KDGRK ICLDP DAPRI KKIVQ KKLAGE DES (SEQ ID NO: 14)  
ITC-2: MNLAGGKEESLSDLYAELRC MCIKT TSGIH PKNIQ SLEVI GKGTH CNQVE VIATL KDGRK ICLDP DAPRI KKIVQ KKLAGE DES (SEQ ID NO: 15)  
ITC-1: MGHHHHHHHHHSSGHIEGRHM YLRMCMIKT TSGIH PKNIQ SLEVI GKGTH CNQVE VIATL KDGRK ICLDP DAPRI KKIVQ KKLAGE DESAD (SEQ ID NO: 16)  
YNAP: MGHHHHHHHHHSSGHIEGRHM YAE LRMCMIKT TSGIH PKNIQ SLEVI GKGTH CNQVE VIATL KDGRK ICLDP DAPRI KKIVQ KKLAGE DESAD (SEQ ID NO: 17)  
ITCTAP: MNLAGGKEESLSDLYAELRC MCIKT TSGIH PKNIQ SLEVI GKGTH CNQVE VIATL KDGRK ICLDP DAPRI KKIVQ KKLAGE DESAD (SEQ ID NO: 18)

FIG. 2